

Section 9-6: Problem Solving Skills: Work Backwards

By the end of this lesson, you should be able to:

- How do you solve real-world applications by working backward?

Where you might see this in the real world:

- Part-time job, finance, travel

If we know the final outcome of a situation but want to know how to get back to the beginning of the problem to apply the concept to other similar problems, we need to be able to work backward.

Example 1: After four stops, every seat in a school bus was taken. Half as many students got on at the second stop as at the first stop, and half as many got on at the third stop as at the second stop. At the fourth stop, five students got on, the same number as at the third stop. How many passenger seats were there on that bus?

Example 2: Matt Mitarnowski has \$14 in his pocket now. During the day, he spent \$27.45 on fez hats, \$8.62 on bubble gum, and \$6 on toys from vending machines. How much money did he start out with?

Example 3: After Shecky planted 42 bubble gum trees, 32 cotton candy bushes, and 25 graphing calculator plants in his garden, he had 185 plants in all. How many plants were in the garden before he added to them?

Problem Set:

"Live up to the best that is in you: Live noble lives, as you all may, in whatever condition you may find yourselves." - Henry W. Longfellow